

## ABSTRACT

This invention relates to an alkaline battery including spherical nickel oxyhydroxide that includes crystals having a  $\beta$ -type structure. In a powder X-ray diffraction profile of the spherical nickel oxyhydroxide obtained using a Cu target, a half-width  $W$  of a diffraction peak  $P$  derived from a (001) plane is  $0.6^\circ$  or less. The ratio  $H/W$  of a height  $H$  of the peak  $P$  to the half-width  $W$  is 10,000 or more. The nickel contained in the spherical nickel oxyhydroxide has a mean valence of 2.95 or more. The use of such nickel oxyhydroxide in an alkaline battery results in a battery having excellent heavy-load discharge characteristics and improved energy densities.